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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,579	08/13/2001	Zoran Petrovic	372155	7878
30955	7590	08/28/2006	EXAMINER	
LATHROP & GAGE LC 4845 PEARL EAST CIRCLE SUITE 300 BOULDER, CO 80301			NILAND, PATRICK DENNIS	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/928,579

Applicant(s)

PETROVIC ET AL.

Examiner

Patrick D. Niland

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6/8/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 and 29-92 is/are pending in the application.
- 4a) Of the above claim(s) 84-92 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 51 is/are allowed.
- 6) ☒ Claim(s) 1-27, 29-50 and 52-83 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/8/06 has been entered.

claims 1-27 and 29-92 are pending. Claims 84-92 remain withdrawn from consideration as being drawn to a non-elected invention and because an RCE is defined as being directed to the same invention and the prior restriction requirement is maintained in the continued examination for the reasons previously stated in this application. Claims 1-27 and 29-83 are under examination therefore.

2. Claims 1-27, 29-38, and 52-83 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. The instant claims now recite "and an effective amount of a crosslinker different from said vegetable oil-based polyol for increasing at least one structural properties of the composition over polymer concrete composition made without said crosslinker, said structural properties selected from the group consisting of compressive strength, flexural modulus, tensile strength, and hardness". The instant specification does not describe in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The instant specification does not

Art Unit: 1714

disclose this new limitation and it is therefore new matter. The applicant's own arguments recite only glycerine with some of the newly claimed properties. Glycerine and the argued properties are not commensurate in scope with the new claim limitations. The applicant does not give guidance in how to choose the instantly claimed "effective amount" regarding all of the crosslinkers encompassed by the instant claims nor all of the properties nor combinations thereof encompassed by the instant claims. There are an infinite number of these crosslinkers with infinite considerations in what properties they will give or detract from. The determination of all encompassed crosslinkers and effective amounts thereof requires undue experimentation therefore as the required teaching to achieve the claimed effective amount is not adequately described in the instant specification for all encompassed crosslinkers. Furthermore, the applicant's arguments also attribute the properties to the presence of pea gravel, not only the crosslinker. Applicant's argument beginning at the last line of page 16 of their arguments, "This disclosure is entirely effective to convey to a person of ordinary skill in the art..." up to page 17, line 7 fails to particularly point out and show where the specification gives this effectiveness, particularly for the entire scope of what the claims now encompass. The added newly encompassed crosslinkers, the requirement that the crosslinker be different from the polyol, and the list of increased properties are not seen in the specification singly or in all of the encompassed combinations. The applicant's argument that "effective amount" is well supported in this specification is not seen by the examiner. The examiner has made no rejection of "effective amount" language per se.

The examiner agrees that no *ipsis verbis* basis is required but the examiner sees no basis for all of the newly encompassed crosslinkers, the requirement that the crosslinker be different

Art Unit: 1714

from the polyol, and the list of increased properties are not seen in the specification singly or in all of the encompassed combinations either *ipsis verbis* or by inference and the applicant has failed to particularly point out such basis. It is not seen that the originally filed specification provides an adequate number of representative species of crosslinkers and their amounts to arrive at the newly claimed invention from the originally filed specification. Glycerine and low molecular weight polyols are hardly representative of all of the crosslinkers now encompassed. "Sufficient structural properties" does not require any improvement at all over the known polyurethanes that inherently have "sufficient structural properties". This vague language does not support the newly recited language by any means. This rejection is therefore maintained.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 39-50 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6686435. Although

Art Unit: 1714

the conflicting claims are not identical, they are not patentably distinct from each other because the patented claims encompass the instantly claimed invention by their use of the broad term filler which encompasses the aggregate of the instant claims. Furthermore, silica is used in the instant claims as the aggregate and is specifically claimed by the patentee (claim 3). The use of antifoam shows that the patentee removes entrained air from the mixture. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use vacuum to aid in the removal of bubble because it is well known to also use vacuum to remove entrained air and they are known to weaken the final product. The reaction of the patented claims falls within the scope of "cured" of the instant claims. The silica must be bonded to the polyurethane of the patentee since the reaction mixture of the patentee is that of the instant claims. The compositions of the prior art contain the same ingredients as those of the instant claims and therefore must also be "concrete" within the meaning of the term as it is used in the instant claims. There is no recited meaning of concrete such that this term distinguishes the patented composition from that of the instant claims. The patentee's claim clearly states "at least about a 2:1 weight ratio" of silica to the polyol which encompasses the instantly claimed amount of "aggregate composition". The portion of the patented specification argued is noted but the claim of the patentee is also part of the specification and the claimed range is all that the ordinary skilled artisan would need to enable using the instantly claimed amounts of aggregate.

For the reasons stated above, the instantly claimed invention is obvious over the patented claims and there is no showing that is commensurate in scope with the cited prior art and the instant claims of unexpected results. There is no probative evidence that the instant claims could not have been filed at the time the patented claims were filed. Silica is a species of the genus

Art Unit: 1714

aggregate of the instant claims and as such anticipates the instantly claimed aggregate. The polyurethane of the patented claims and the instant claims fall within the scope of each other. The patented claims require "at least about a 2:1 weight ratio" of silica to polyol of which the polyurethane is approximately the same amount as the polyol it is made with. 30 wt % polyurethane and 70 weight percent aggregate is 2.3:1 aggregate to polyurethane which is "at least about a 2:1 weight ratio" due to the recitation of "about" in the patented claims. The instant claims are thus obvious over those of the patent because the instantly claimed language falls within the scope of that of the patentee. There is not a showing of unexpected results for any range within a range of the instant fact situation. The filled polyurethane claims of the patentee are not limited to electrical components and encompass all other compounds as they recite "comprising" and "filler" (patented claim 3). It is not seen that pea gravel nor any other filler of the instant claims are excluded from insulators as polymer filled with such a filler would necessarily be insulating and hard as is required of many such insulators, e.g. the ceramic insulators of high tension connections. "Concrete" of the instant claims is not seen as giving any further meaning to the instant claims than the recited ingredients which follow after "comprising". Molding such "concrete" into electroinsulators is not excluded by "concrete". Arguments over the limited examples of the patentee are not persuasive as the patent is not required to be a blue print of the invention and is not even required to have examples. There is no evidence that "concrete" is different in kind than the electrical insulators of the patentee. Furthermore, the composition claims are not limited to insulators and are no different than the instant claims in that the patented claims encompass the instant claims and as such are not non-

Art Unit: 1714

analogous art as both relate to mixtures of polyurethane and aggregate. The proper comparison is not with traditional cement and limestone but with the compositions of the patentee.

The instant claims 39-50 do not require the instantly claimed crosslinker to be different from the vegetable oil polyol and the polyol of the patentee contains some amount of tri or higher functional polyol which will crosslink the polyurethane of the patented claims and which falls within the scope of the crosslinker of the instant claims. The applicant's arguments therefore do not apply to these claims. The instant claims 1-27, 29-38, and 51-83 recite "effective for increasing" various claimed properties. It is unclear what they are to be increased over, e.g. a corresponding linear polyurethane, an unfilled polyurethane, etc. It is noted that the components of the patentee encompass polyfunctional polyols and polyisocyanates (column 9, lines 34-57, column 10, lines 51-64 with "crosslinking" of line 63 being particularly noted). Thus, the polyols and polyisocyanates with more than 2 functional groups give crosslinking and are therefore "crosslinkers". It is noted that these polyfunctional compounds are part of a mixture of compounds and therefore a portion can be thought of as polyol or polyNCO per se and the remainder as "crosslinker" per se. The crosslinking achieved by the patentee using either polyol and/or polyNCO of functionality greater than 2 will increase the molecular weight of the polymer via crosslinking by definition, make a three dimensional network of molecules by definition and a function of the reactants used, the presence of filler and the accompanying increase in molecular weight will necessarily and inherently give an increase in the claimed properties over the corresponding linear and unfilled polyurethanes of the patentee. Note the polymer textbook, i.e. well known, relationship of molecular weight to modulus. The increase in modulus is expected to give increased physical properties such as those claimed. Addition of



Art Unit: 1714

hard filler is expected to increase the overall hardness of the compositions, e.g. one of the well known purposes of "filler".

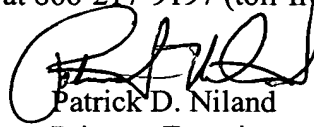
The compositions of the instant claims are obvious over those of the patented claims for the reasons stated above and this rejection is maintained.

5. Claim 51 is allowable over the cited prior art because the prior art does not disclose this composition nor provide rationale to modify the prior art compositions into this composition.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patrick D. Niland  
Primary Examiner  
Art Unit 1714